

REMARKS/ARGUMENTS

Claims 1-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gernert et al. (U.S. Patent No. 6,600,734) in view of Kitahata et al. (U.S. Patent No. 6,037,400). For the reasons set forth hereinafter it is requested that the Examiner reconsider and withdraw the rejection of claims 1-15 as being unpatentable over the Gernert et al. and Kitahata et al. references.

The present application relates to a network connection system for machine tools, in particular for injection presses for plastics, comprising a plurality of machine tools to be connected to a wireless network, where at least some of the machine tools comprise a device suitable to connect them to the wireless network through a radio communications link. This novel network connection system is not shown or even suggested by the combined teachings of the cited references.

As set forth on pages 5 and 6 of the specification, the network connection system of the present invention has many advantages over the prior art, some of which are as follows:

1. There is the possibility of completely freeing the plant lay-out from the need to reach the machines or other devices with a data transmission network. Consequently, the machines can be moved and distributed in the plant without any constraint.

2. The complete absence of wiring in the connection of the machines to the network makes it possible to achieve a highly resilient network and avoids interruptions caused by damage to the transmission line. Also, one or more machines can be turned off without losing the connection to the others.

3. The connection of the machines to the network is very simple. From the moment of installation of a machine, the connection of the machine to the network is immediately available.

No network technician is needed when installing a new machine on the network since all setting up can be carried out by the manufacturer of the machine during testing procedures or remotely via the remote connection to the network server.

4. Network connection of the machines makes the data present on the machines available for management of automatic real-time production control. It is possible to load on to the computer of the machine data such as new processing files, quantities required for production batches and in general all the data that would otherwise have to be set up directly on the machine. Such data is available on the local server and on all other computers placed on the same network.

5. In the case of the server also acting as a bridge toward other networks, the data can be received or sent from computers situated on other LAN networks with which the server is connected.

6. If the server is connected with an analogical or digital modem device for connection to other data networks, the network of the machines can be connected by means of a point-to-point connection with a remote computer or can be connected to the Internet. These types of connections make it possible to carry out services of remote assistance, machine monitoring or sending of service request messages by the machines.

Claim 1 and dependent claims 2-15 all specifically recite a network connection system for machine tools, in particular injection presses for plastics, comprising a plurality of machine tools constructed to be connected to a network to share common resources and exchange data, characterized in that the network is a wireless network and at least some of the machine tools comprise, in a permanent or semi-permanent manner, a device for connection to the wireless network, through radio communication in frequency bands available for radio communications,

the device for connection to the wireless network being able to communicate with a server, also provided with a device for connection to the wireless network and/or with at least one access point connected to a hard-wired network. This novel network connection system is not rendered obvious by the teachings of the cited references.

Gernert discloses an apparatus for interfacing a wireless local area network with a wide area, cellular or public switched telephone network including the function of a wireless LAN base station or access point, and a gateway. The interface may contain one or more different types of gateways, including a PSTN voice gateway, an analog modem gateway, and others. The apparatus may function as a data downloading station for a portable computer, pen-like barcode reader or the like, and also transmits the downloaded data to an IP network, a WAN or the PSTN. There is clearly no disclosure or even a suggestion in Gernert of Applicant's novel network connection system for machine tools, in particular for injection presses for plastics, comprising a plurality of machine tools to be connected to a wireless network, where at least some of the machine tools comprise a device suitable to connect them to the wireless network through a radio communications link, as specifically recited in claims 1-15.

The Examiner recognizes that Gernert does not specifically teach a network connection system for machine tools, in particular injection presses for plastics. The portions of the specification of Gernert specifically cited by the Examiner clearly do not disclose or even suggest a network connection system for any type of machine tools.

The Examiner alleges that, in a related art dealing with wireless and/or wired communication systems, Kitahata teaches machine tools, in particular injection presses for plastics. Accordingly, the Examiner concludes that it would have been obvious to one of

ordinary skill in the art at the time the invention was made to include Kitahata's machine tools with Gernert's telecommunications system.

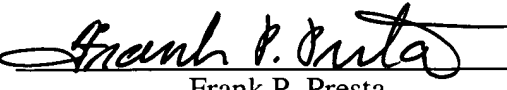
It is submitted that the teachings of Kitahata fail completely to supply the deficiencies of Gernert with respect to the novel recitations in Applicant's claims. Kitahata discloses a composition for prevention of electric waves having both absorbing properties and shielding properties against electric waves. Carbon fiber or magnetic particles, or both, and graphitized carbon black are dispersed and incorporated into an insulating substrate so that the weight ratio of the graphitized carbon black to the carbon fiber, the magnetic particles or the sum of the two may be 0.3 to 5. First, it is apparent that the disclosure of Kitahata is completely non-analogous to the network connection system of the present invention. Second, there is clearly no disclosure in Kitahata of machine tools, in particular injection presses for plastics, or a network connection system for any type of machine tool. Third, there is no basis for combining the teachings of the Kitahata and Gernert references. It would require hindsight, after having the benefit of Applicant's disclosure, to even conceive of a combination of the Gernert and Kitahata references in the manner set forth by the Examiner in the Office Action. Finally, even if the teachings of Kitahata and Gernert are combined, with the result that the shielding material of Kitahata is used on the apparatus of Gernert, there would still be no disclosure or even a suggestion of the novel network connection system for machine tools, as recited in claims 1-15 of the present application.

In view of the above amendments and remarks, it is submitted that claims 1-15 are clearly allowable over the teachings of the cited references. Prompt allowance of claims 1-15, therefore, is earnestly solicited.

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Respectfully submitted,

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